

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS

3. (Amended) A method of claim 1-~~or~~2, **characterized** in that the mutation or mutations are located in the trinucleotide (CAG) microsatellite repeat of the *POLG* gene.
5. (Amended) A method of claim 1-~~or~~2, **characterized** in that the mutation or mutations are located in or near a coding region of the *POLG* gene.
6. (Amended) A method of claim 1-~~or~~2, **characterized** in that one mutation or mutations are located in one allele of the *POLG* gene in the trinucleotide (CAG) microsatellite repeat and another mutation or other mutations in the other allele of the mutant *POLG* gene in or near a coding region of the gene.
7. (Amended) A method of ~~any one of~~ claims 1-~~to~~6, **characterized** in that the detection of the mutation is performed using a gene-technological method.
9. (Amended) A method of ~~any one of~~ claims 1-~~to~~6, **characterized** in that the detection of the mutation or mutations is performed using an immunological method, such as a Western analysis, immunohistology or immunoassay, for characterization of a mutant gene or gene product.